ABSTRACT

A device includes an analyzer (53) and a sampling apparatus (51) for taking a sample of at least one fraction of the gas that has at least one porous membrane element (55). The porous membrane element (55) has a support (63) and a first surface (57) which is in contact with liquid circulating in duct (13) and a second surface (59) which opens out into a duct (61) which is connected to the analyzer (53). The hardness of the first surface (57) is more than 1400 Vickers (kgf/mm²), ranging more particularly between 1400 and 1900 Vickers (kgf/mm²). The device can be used to analyze the gaseous content of oil well boring sludge.